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## THE PROGRESS OF SCIENCE

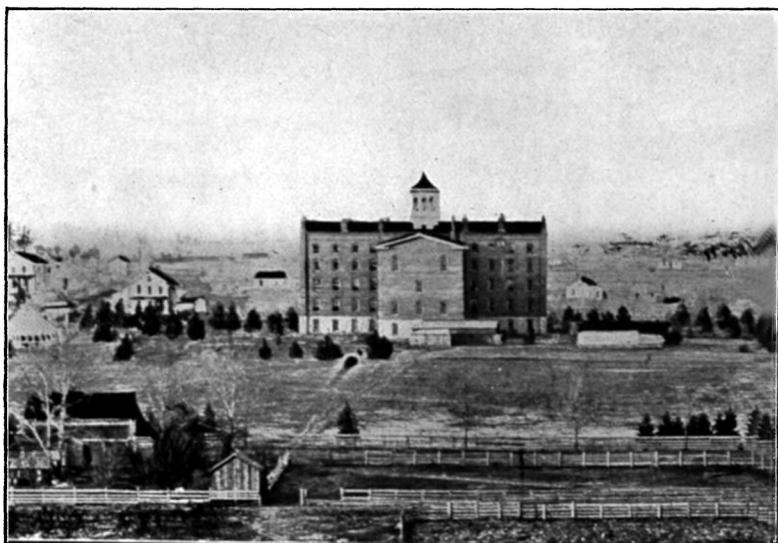
*THE AMERICAN CHEMICAL SOCIETY AND THE CHEMICAL LABORATORY OF THE UNIVERSITY OF ILLINOIS*

THE fifty-second meeting of the American Chemical Society was held at the University of Illinois, Urbana-Champaign, April 17-21, 1916. The meeting stands as the largest in the history of the society, the registration showing an attendance of 572 members and 157 guests, representing 32 states and 4 foreign countries. The two special features of the gathering were the dedication of the new chemical laboratory and an exhibit of American-made chemical products and apparatus. Excursions were made to the various departments of the university and to the chemical manufacturing plants at Danville. The entertainment included a review of the University Brigade of 2,100 men; a band concert

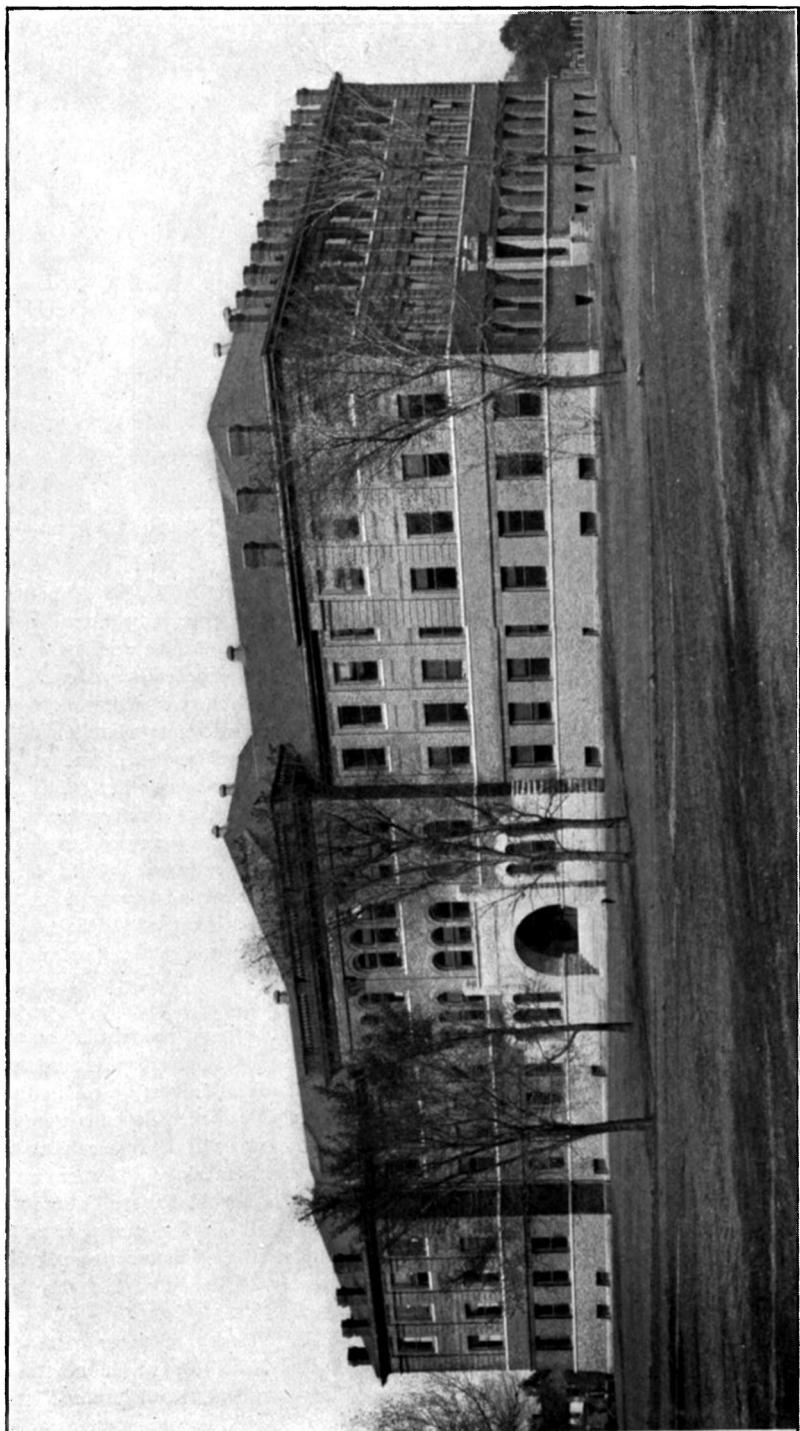
by the First Regiment Band of 75 pieces; a smoker, and a banquet at which 402 covers were laid. Special entertainment for the ladies included receptions, concerts, luncheons and automobile drives.

At the council meeting the most important items of business were authorization of the publication of the ten-year index to *Chemical Abstracts*, and the appointment of a committee to consider the establishing of a publicity bureau whose duty it shall be to supply correct information of a chemical nature to newspapers and popular periodicals.

The first general session was held in the university auditorium, with Professor W. A. Noyes, chairman of the Illinois Section, presiding. President Edmund J. James, of the university, gave a cordial welcome to the visiting chemists. Professor Charles H. Herty, president of the society, responded in



THE FIRST BUILDING OF THE UNIVERSITY OF ILLINOIS. From a photograph taken about 1875. The Department of Chemistry was located in the basement of the rear wing, one window showing, just at the left of the shed. The only source of heat was a kitchen stove and water was supplied from a nearby pump.



THE CHEMISTRY BUILDING, 1902.



HOME OF THE DEPARTMENT OF CHEMISTRY FROM 1878 TO 1902. This building, much changed in appearance, is the present Law Building.

an address in which was emphasized the need of trained chemists in the development of our national industries.

Sectional meetings were held in which a total of 283 papers were offered. These were distributed as follows:

|                                    |    |
|------------------------------------|----|
| Agriculture and Food .....         | 22 |
| Biological .....                   | 76 |
| Fertilizer .....                   | 1  |
| Industrial and Engineering .....   | 26 |
| Organic .....                      | 53 |
| Pharmaceutical .....               | 15 |
| Physical and Inorganic .....       | 62 |
| Water, Sewage and Sanitation ..... | 28 |

Two illustrated public lectures were delivered upon the subject of radium: Dr. Charles L. Parsons spoke on "The Production of Radium" and Dr. Curtis F. Burnam on "The Use of Radium in Treatment of Cancer."

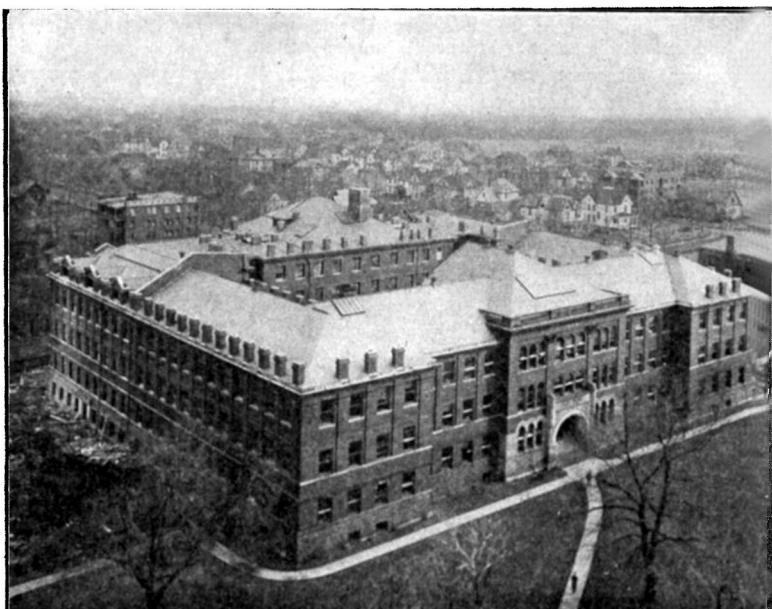
The exhibit of chemical industries, arranged in the basement of the new building, proved to be one of the most interesting and valuable features of the gathering. Exhibitors to the number of 57 displayed a great variety of products of American manufacture, illustrating both the wide range of products of American ingenuity and the necessity for the development of certain other lines of chemical industry.

The dedicatory exercises were held in the university auditorium on Wednes-

day afternoon, with W. L. Abbott, president of the university board of trustees, presiding. In the opening address President James called attention to the fact that a university is no longer considered complete when it consists of a log with a teacher at one end and a student at the other; but a large factor in the success of a university in these days is the appearance of its campus and the equipment of its departments. The size and beauty of the new chemistry building at Illinois is an inspiring witness of the importance of chemistry.

"The Training of Chemists" was the subject of a very thoughtful and helpful address by Professor Alexander Smith, of Columbia University. All advancement in the science depends upon research and successful research requires thorough training. The entire chemical course should have all its instruction as well as the arrangement and equipment of the laboratories point toward greater efficiency of the chemists.

Dr. W. R. Whitney, member of the United States Naval Board, in a stirring address on "Research as a National Duty," told his hearers that he was tired of seeing the United States play the part of a trailer among na-



THE CHEMISTRY BUILDING, 1916. View from the tower of University Hall, looking southeast. In the foreground is the old portion of the building; the fire wall separating the new part is shown on both the north and the south portions of the roof.

tions; that leadership must come through systematic and thoughtful scientific research. Progress has been slow because we are just beginning to appreciate the value of research. Many of our institutions of learning are better known for their footwork than for their headwork. Colleges and universities must take the lead in research, for there is no better type of preparedness than research which is effective and persistent.

Upon the opening of the new laboratory, the department of chemistry occupies its fourth home since its organization in 1868. The first quarters were in the basement of the rear wing of the first university building, where heat was supplied from a kitchen stove and water was obtained from a near-by well. In 1878 the department was provided with a separate laboratory, a three-story brick building which is used now as the home of the College of Law. A much larger building was erected in 1902 and this building which is shaped

like the letter "E" forms a part of the present completed structure. The present building forms a hollow square, 230 feet by 116 feet, the main lecture room and the machinery for ventilation being in the court. The working space comprises 3.77 acres. Each laboratory is distinctive in that its arrangement and equipment are planned for its own peculiar type of work. Abundant provision is made for research in various lines of work. The present valuation of the entire plant, including equipment and supplies is about \$540,000.

#### *THE HYPOTHESIS OF AVOGADRO*

THE molecular hypothesis of Avogadro was proposed in 1811. Eight years before, John Dalton had put forward the atomic hypothesis, which bears his name, to account for the laws of definite and multiple proportions and the law of combining numbers. According to this hypothesis, an atom is the smallest particle of an element